Deliv 54538 Dec 8!

Work Order ID 54218

December 3, 2009 12:38:29 PM

Item ID: D3183-044
Revision ID: C1
Item Name: Bracket Assembly

Accept **Setup Start** **Stop**

Start Date: 12/03/09 **Start Qty:** 4.00
Required Date: 12/08/09 **Req'd Qty:** 4.00
Reference:

Cust Item ID:
Customer:

Approvals: **Process Plan:** ✓ **Date:** **Tooling:** **Date:**
QC: **Date:** **SPC (Y/N):** **Date:**

Run Start **Stop**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr D3183	**Revision Nbr** Rev C1								
100 Bandsaw	BAND SAW	0.00 / 0.00				4	0		
Jeaspa Bandsaw	**Memo** Cut blanks: (1.500" x 2.250") 5.500" long								
110 HAAS 1	HAAS CNC VERTICAL MACHINING #1	0.00 / 0.00				4	2		
HAAS CNC vertical machine #1	**Memo** 1-Machine D3183-4 as per Folio FA322 and Dwg D3183. Identify as D3183-4; 2-Deburr; 3-Scribe batch number								
120 QC	QC2- Inspect parts off machine FAI/FAIB	0.00 / 0.00				4	2		
Quality Control	**Memo**								

B.A 09/12/05

B.A 09/12/05

B.A 09/12/05

P to →

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: D3183-044 **PAR #:** _____ **Fault Category:** Machined Parts **NCR:** (Yes) No **DQA:** [signature] **Date:** 05-12-11

Resolution: Scrap **Disposition:** Scrap **QA: N/C Closed:** [signature] **Date:** 05-12-11

NCR: 54218		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			
09/12/05	110	2 part scrap → I have a drill broken inside → I have half of the .290 rad missing r.c. length of tool, wrong tools, setup fault	[signature]	scrap and replace Qty 2 M 111899	M.P 09/12/05	[signature] 09/12/10	[signature]	[signature] 09.12.10
		L> LOA.						

NOTE: Date & initial all entries

Work Order ID 54218

December 3, 2009 12:38:29 PM

Item ID: D3183-044
Revision ID: C1
Item Name: Bracket Assembly

Start Date: 12/03/09 **Start Qty:** 4.00
Required Date: 12/08/09 **Req'd Qty:** 4.00
Reference:

Accept

Setup Start
Stop

Cust Item ID:
Customer:

Run Start
Stop

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**
QC: **Date:** **SPC (Y/N):** **Date:**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00							
QC	**Memo**	0.00							
Quality Control									
140		0.00							
Small Fab	Small Fab								
Small Fab	**Memo**	0.00							
	Assemble D3183-043 as per Dwg D3183.								
150	QC5- Inspect part completeness to step on W/O	0.00							
QC	**Memo**	0.00							
Quality Control									

ark 09/12/10

4 0

09/12/10

27 & 09/12/10

(x4) ¢

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Work Order ID 54218

December 3, 2009 12:38:30 PM

Item ID: D3183-044
Revision ID: C1
Item Name: Bracket Assembly

Start Date: 12/03/09 **Start Qty:** 4.00
Required Date: 12/08/09 **Req'd Qty:** 4.00
Reference:

Accept **Setup Start** **Stop**

Cust Item ID:
Customer:

Run Start **Stop**

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**
QC: **Date:** **SPC (Y/N):** **Date:**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: 236A	0.00				9/12/11		SD YC	
Packaging	**Memo**	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00				09/12/11			
QC	**Memo**	0.00							
Quality Control									

09.12.11

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Picklist Print

December 3, 2009 12:38:28 PM

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Work Order ID: 54218

Parent Item: D3183-044RevC1

Parent Item Name: Bracket Assembly

Comments:

Start Date: 12/03/09 **Required Date:** 12/08/09

Start Qty: 4.00 **Required Qty:** 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3121-21RevE		Manufactured	No			140	Each	71.0000	8.0000			
Bolt												

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
ST	71	
46032	5	
50096	10	
52518	56	

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3183-045RevC1		Manufactured	No			100	Each	148.0000	8.0000			
Bearing Assembly												

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
ST	148	
46393	3	
51560	2	
52209	143	

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M174B1.500X02.250		Purchased	No			140	f	15.5406	1.9297			
17-4 SS Bar 1.50 X2.250												

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
MAT	15.5406	
108309	0.82	
111899	14.7206	

1,9297" B.A 09/12/05

(M111899) + 0.8270"

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W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	54218
Description: Bracket	Part Number:	D3183-4
Inspection Dwg: D3183 Rev: C1		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	R0.190	✓			
R0.063	+/-0.010	R0.063	✓			
~~0.188~~ 0.182	+/-0.010	0.183	✓			
0.070	+/-0.010	0.070	✓			
0.100	+/-0.010	0.100	✓			
Ø0.201 x 0.100	+/-0.010	Ø0.200x0.100	✓			
~~0.183~~ 0.182	+/-0.010	0.181	✓			
5.32	+/-0.030	5.320	✓			
5.036	+/-0.010	5.036	✓			
2.120	+/-0.010	2.119	✓			
1.290	+/-0.010	1.290	✓			
0.365	+/-0.010	0.365	✓			
0.218	+/-0.010	0.214	✓			
1.030	+/-0.010	1.030	✓			
1.90	+/-0.030	1.888	✓			
1.012	+/-0.010	1.010	✓			
Ø0.201 x 0.100	+/-0.010	Ø0.201x0.100	✓			
0.786	+/-0.010	0.783	✓			
Ø0.392	+0.002/-0.000	Ø0.393	✓			
R0.19	+/-0.030	R0.190	✓			
3.954	+/-0.010	3.954	✓			
0.162	+/-0.010	0.161	✓			
R0.19	+/-0.030	R0.190	✓			
R0.25	+/-0.030	R0.250	✓			
4.26	+/-0.030	4.261	✓			
2.800 Calculated dimension	+/-0.030	2.825	✓			
0.162	+/-0.010	0.162	✓			
0.615	+/-0.010	0.617	✓			
0.435	+/-0.010	0.435	✓			
0.200	+/-0.010	0.200	✓			
0.381	+/-0.010	0.383	✓			
0.032	+/-0.010	0.032	✓			

Measured by:	J.A
Date:	09/12/05

Audited by:	
Date:	09/12/10

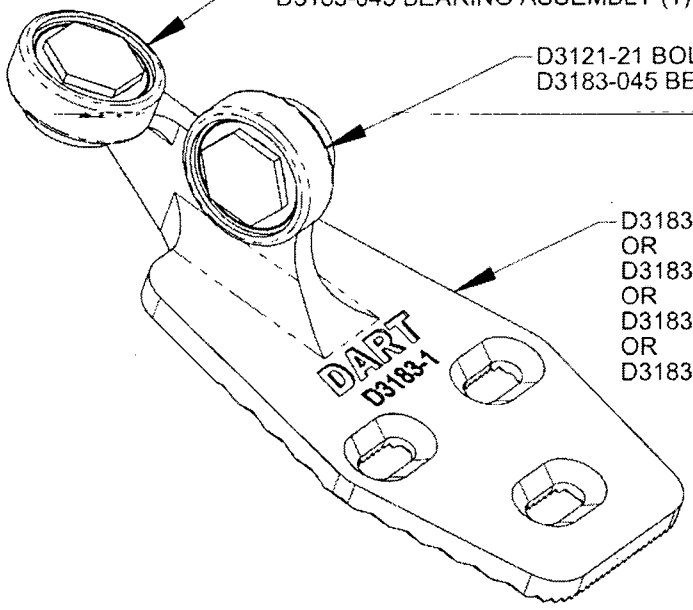
Prototype Approval:	N/A
Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-044	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	04.06.15	Dimension 2.800 was 2.080; removed 1.155, 0.36 dimensions	KJ/JLM	
D	06.03.09	Dwg Rev update	KJ/JLM	
E	08.01.16	Dimensions revised	KJ/EC/DD	

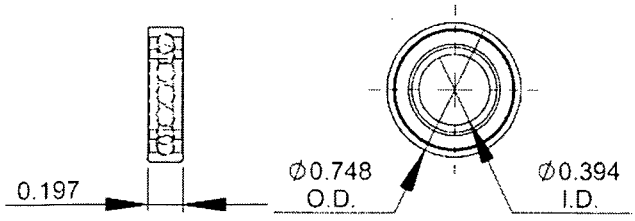
DESIGN	DRAWN BY	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1

A	03.01.24	NEW ISSUE
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431

RELEASED

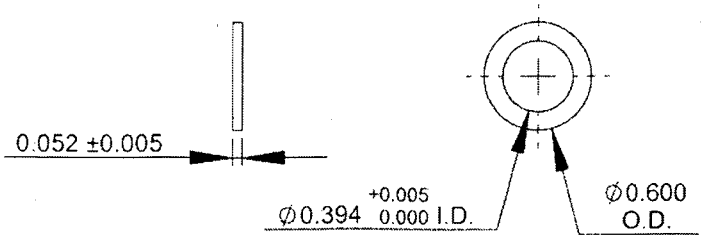


D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



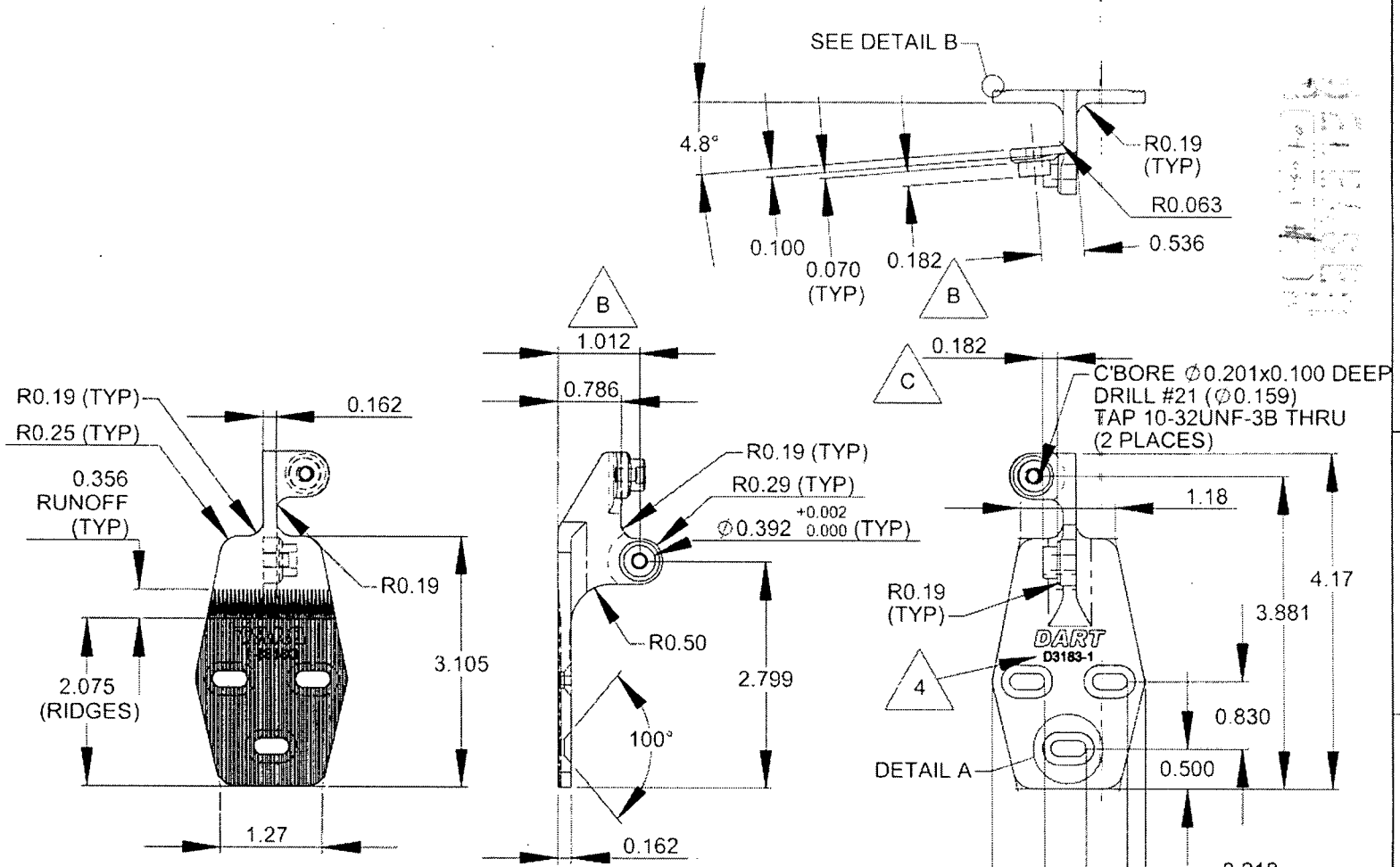
D3183-5 BEARING: SPECIFICATION CONTROL DRAWING

1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

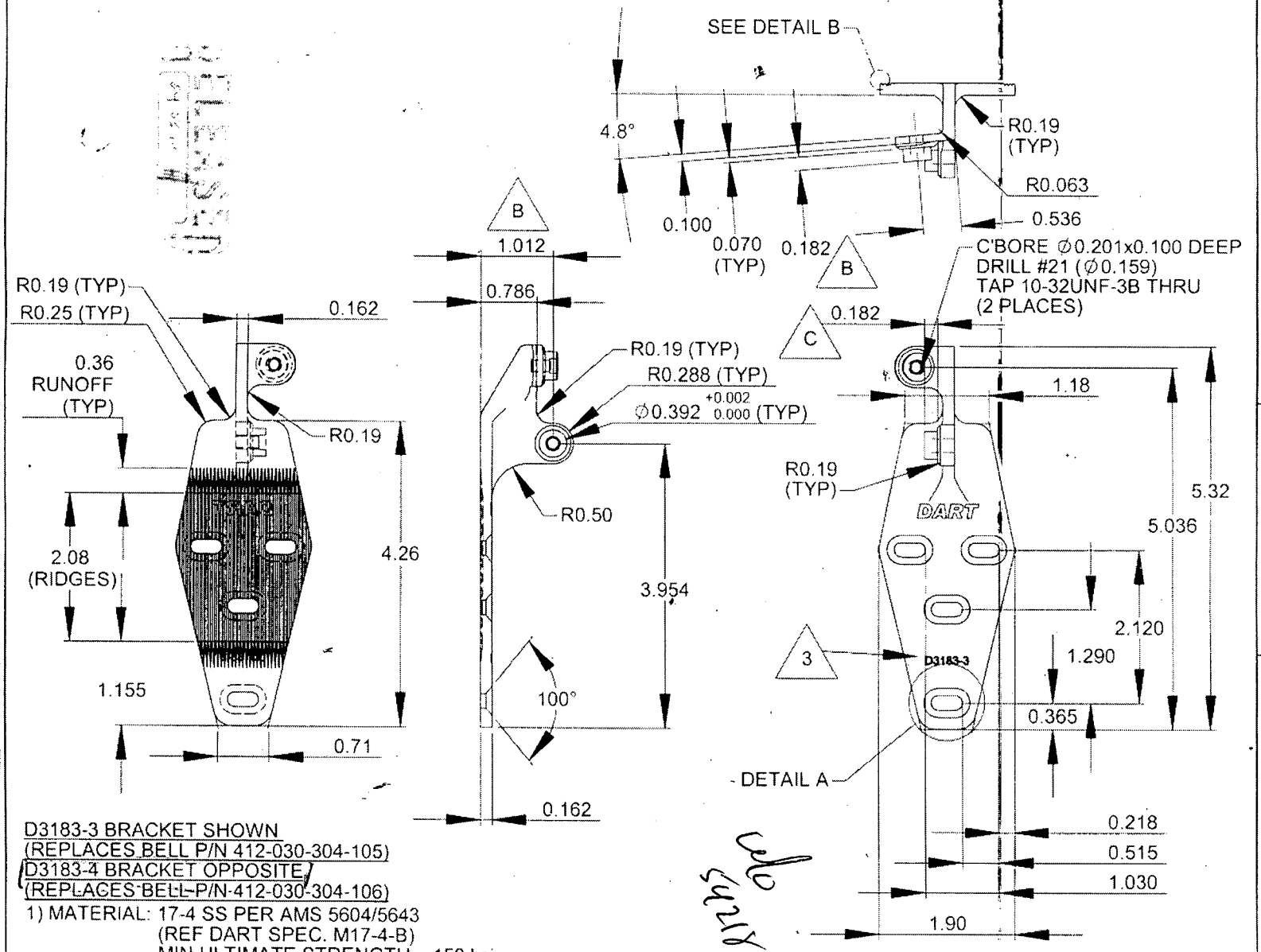
1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
2) BREAK ALL SHARP EDGES 0.005 TO 0.010
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES



D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE

1) D3183-1 CAN BE MADE FROM D3183-3
   D3183-2 CAN BE MADE FROM D3183-4
2) MATERIAL: 17-4 SS PER AMS 5604/5643
   (REF DART SPEC. M17-4-B)
   MIN ULTIMATE STRENGTH = 150 ksi
   MIN YIELD STRENGTH = 100 ksi
3) BREAK ALL SHARP EDGES 0.005 TO 0.015
4) ENGRAVE DART P/N & LOGO AS SHOWN
5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
6) ALL DIMENSIONS ARE IN INCHES

DESIGN	DRAWN BY	**DART AEROSPACE LTD**	
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA	
DATE 04.02.17	DRAWING NO. D3183	REV. C	
TITLE BRACKET ASSEMBLY	SCALE 1:2	SHEET 2 OF 4	

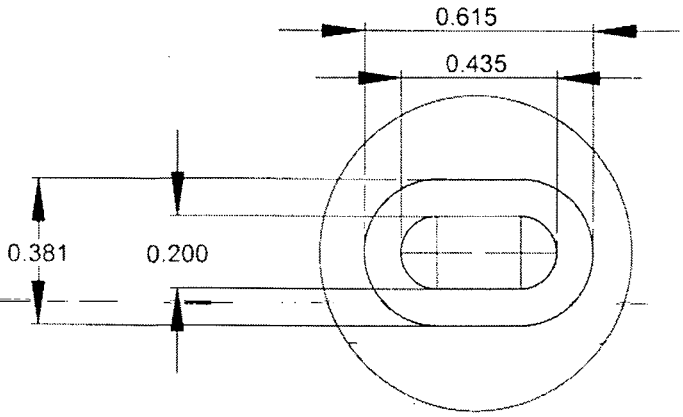


D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
2) BREAK ALL SHARP EDGES 0.005 TO 0.015
3) ENGRAVE DART P/N & LOGO AS SHOWN
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
5) ALL DIMENSIONS ARE IN INCHES

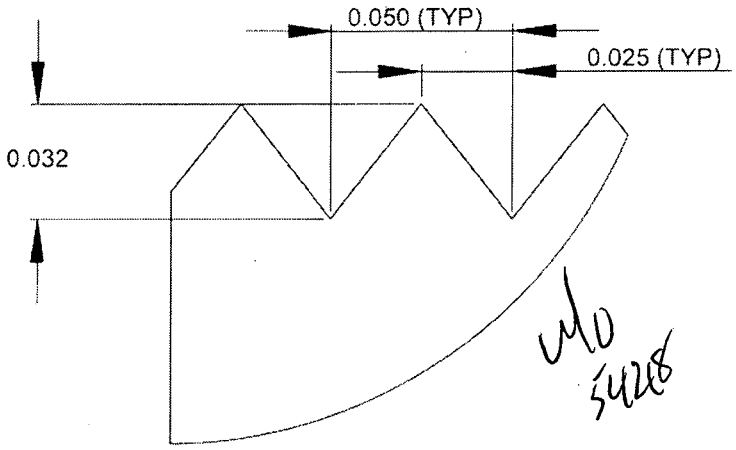
DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE 04.02.17		DRAWING NO. D3183 REV. C
		TITLE BRACKET ASSEMBLY SHEET 3 OF 4 SCALE 1:2

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1

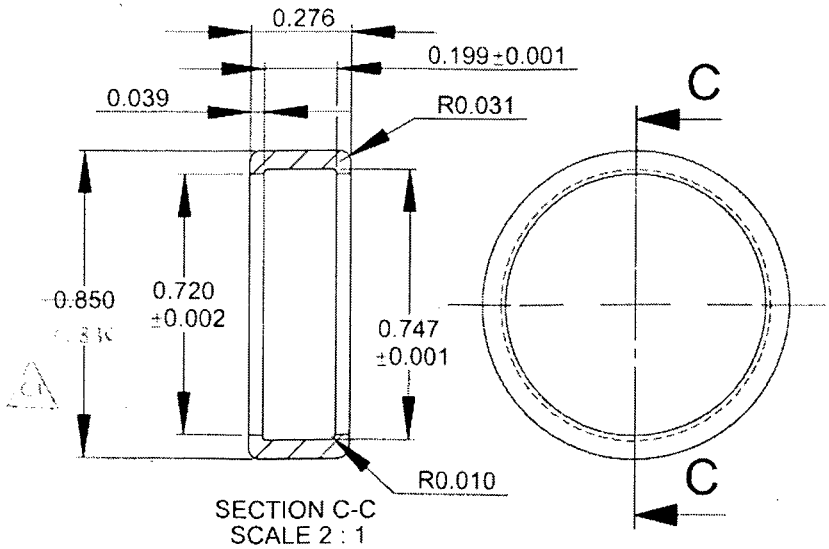


DETAIL A (2 : 1)

RELEASED



DETAIL B (20 : 1)



SECTION C-C
SCALE 2 : 1

D3183-9 CAP

1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP